

Research Paper

## Corporate Governance toward 5.0: Insights from State-Owned Enterprises in Indonesia

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### ABSTRACT

Existing research separately examines factors like qualification, tenure, and independence in relation to financial performance, overlooking the potential combined or interactive effects. This research intends to determine the role of the board of directors in addressing future challenges encountered by Indonesian state-owned enterprises. The research methodology involves quantitatively correlating independent and dependent variables, with or without variable control, utilizing nine financial ratios to assess firm conditions. The study utilized secondary data from financial statements and annual disclosures of Indonesian state enterprises from 2009 to 2016. The findings indicated that firstly, the degree, whether with or without control variables, is associated with Return on Asset and Fixed Asset Turnover. Secondly, board tenure, with or without control variables, does not exhibit a correlation with financial performance. Thirdly, the size of the independent board of directors, with control variables, does not correlate with financial performance, whereas without control variables, it is correlated with Net Profit Margin and Cash Ratio. This study introduces a new concept of board performance to predict bankruptcy indicators in companies, considering their Return on Assets (ROA) and Fixed Asset Turnover.

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## Introduction

In the face of a global recession threatening capital owners' assets, managerial behavior, as per agency theory, evolves by adapting strategies to consider the value of corporate governance and the uncontrollable macro environment (Mahmood et al., 2023). Corporate governance encompasses the structure and fundamental processes designed to oversee the direction and management of a company, ensuring the effective achievement of the company's objectives (Sidki et al., 2022). Regulations and policies play a pivotal role in implementing corporate governance guidelines, offering certainty in a company's life cycle. However, each company's governance varies, and it can significantly enhance operational effectiveness and efficiency. The research is grounded in Agency theory, emphasizing its role in achieving effective and efficient company performance (Elms et al., 2015). This theory offers fresh perspectives, encompassing internal control aligned with the company's life cycle, integration of strategic dynamics during a global recession, and the pivotal roles of the board of directors and public trust. Consequently, the board of directors is conceptualized as effective monitors of managers, ensuring decisions align with shareholder interests, optimizing company resources and performance, and playing a crucial role in CEO recruitment, monitoring, and dismissal. The leadership of a board of directors involves skilful balancing of monitoring and support to foster harmonious relationships with managers.

State-owned enterprises, essential for supporting the Indonesian economy, represent government business entities requiring enhanced governance oversight, to balance and safeguard capital owners' wealth. Stakeholders are concerned about reciprocal relations, emphasizing the importance of maintaining the company's business through the utilization of internal and external information for informed decision-making. The Blue Ocean strategy and corporate strategy serve as frameworks for unlocking the potential of state-owned enterprises, with researchers highlighting the potential severe impact of the board of commissioners' frequent changes in the face of global recession if not promptly addressed. Improvement measures involve enhancing commissioners' accrual accounting capabilities to anticipate financial crisis symptoms. Previous studies on state-owned companies, including considerations of ownership role, board size, supervisory board, and company size, have not fully captured the financial pressures faced by manufacturing companies in Indonesia (Manan & Hasnawati, 2022). Studies emphasize the continued effective use of financial and non-financial methods in evaluating company performance (Tandiawan, 2022).

The financial performance of an organization serves as a pivotal indicator of its overall success (Jafar et al., 2021). Researchers advance concepts highlighting the crucial role of human abilities in stakeholder engagement within companies as key to achieving successful financial performance, encompassing board degree, tenure, size, structure, and independence. The accountability of the board of directors in managing accounting accruals is under public scrutiny due to its connection to the company's future strategic planning. As the global financial crisis (GFC) looms or has already occurred in various countries, joint orientation becomes essential for strategic alignment within the company, addressing potential conflicts like internal control, with the necessity of an independent audit committee to counteract corruption. This perspective aligns with Cha & Abebe (2016), who assert that internal control tools play a pivotal role in financial performance, especially in dividend payments, offering alternative avenues for corporate sustainability.

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Researchers emphasize that the rapid turnover of the board of directors not only affects financial performance but also amplifies future risks, with the likelihood of director changes viewed through the lenses of Risk Idiosyncratic and Risk Peer. [Bushman et al. \(2010\)](#) have examined these risks, highlighting the domino effect of forced turnover on securities in terms of idiosyncratic risk, while peer risk suggests that such turnover can unpredictably influence performance. Acknowledging change as a tool for accountability aligns with the perspective of [Knapp and Feldman \(2012\)](#), who suggest that transformation, driven by external demands, utilizes internal accountability resources to rebuild a more effective workspace. Consequently, the transformation of the board of directors becomes imperative, strategically managed to anticipate external global recessions by addressing potential risks and fostering internal accountability.

The board of directors in state-owned companies faces a significant challenge regarding the company's resilience amid global recession and intense global competition, prompting the need for a transformation of the board of directors. Information obtained through big data, such as data from the Indonesian Stock Exchange ([Chang & Sun., 2016](#)), has been noted to contribute to decision-making due to its fast and easily accessible nature. The reliability of information concerning the board of directors is a central issue frequently debated, given its impact on performance risk. [Call et al. \(2017\)](#) examine whether the quality of a firm's workforce is associated with financial reporting quality. Top-tier employees contribute positively to their company's financial reporting environment through two primary avenues. Firstly, they offer superior information that serves as valuable input for executives when making reporting decisions. Secondly, these high-quality employees possess the ability to detect and expose intentional financial misreporting, potentially identifying such issues even before they escalate into more significant misreporting events. Contrarily, higher education does not appear to be the primary objective for students in terms of employability ([Ali & Jalal, 2018](#)).

Researchers emphasize that the rapid turnover of the board of directors not only affects financial performance but also amplifies future risks, with the likelihood of director changes viewed through the lenses of Risk Idiosyncratic and Risk Peer. [Bushman et al. \(2010\)](#) have examined these risks, highlighting the domino effect of forced turnover on securities in terms of idiosyncratic risk, while peer risk suggests that such turnover can unpredictably influence performance. Acknowledging change as a tool for accountability aligns with the perspective of [Knapp and Feldman \(2012\)](#), who suggest that transformation, driven by external demands, utilizes internal accountability resources to rebuild a more effective workspace. Consequently, the transformation of the board of directors becomes imperative, strategically managed to anticipate external global recessions by addressing potential risks and fostering internal accountability.

This research seeks to assess the board of directors' role in tackling future challenges within Indonesian state-owned enterprises, considering factors like education level, tenure, and board size. The existing research primarily focus on individual factors (qualification, tenure, and independence) in isolation regarding their correlation with financial performance. However, there is a potential research gap in not exploring the combined or interactive effects of these factors on the financial performance of the company. Understanding how these factors interplay could provide a more comprehensive insight into the dynamics of board effectiveness in relation to financial

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outcomes. The advantage lies in providing insights to enhance board effectiveness, potentially leading to improved decision-making and adaptability.

### *Hypothesis Development*

Several studies highlight the crucial role of human capital investment in influencing bank performance. [Rahman and Akhter \(2021\)](#) emphasize the positive impact of factors such as training, knowledge level, and skills on overall bank performance. This is supported by previous research, which consistently shows a significantly positive relationship between higher education and employment ([Ali & Jalal, 2018](#); [Jafar et al., 2021](#)). Additionally, [Hajdari et al. \(2023\)](#) asserts that ongoing education for employees in commercial banks is instrumental in enhancing productivity, consequently influencing the financial performance of the bank. In certain sectors, companies with a highly educated workforce demonstrate improved financial reporting quality, reflecting the enhanced capabilities of their employees ([Call et al., 2017](#)). Furthermore, the educational background of board members, especially degrees from prestigious foreign business schools, is noted to exert a significantly positive influence on firm performance ([Pereira & Filipe, 2018](#)). Collectively, these findings underscore the importance of human capital factors and ongoing education in shaping the performance outcomes of both banks and companies.

**H1:** A board of directors with a minimum qualification of a Master's degree correlates with the financial performance of the company.

Director tenure, referring to the duration a director serves on a corporate board ([Ji et al., 2021](#)), plays a pivotal role in shaping the board's performance. The rationale behind the board of director changes lies in the belief that updated information equips the company to make informed decisions for its future. Despite the challenges associated with altering a board of directors, the priority remains firmly grounded in advancing the company's future goals. Policymakers are tasked with addressing the difficulties arising from such changes and ensuring that the reconfigured board acquires new skills ([Chang & Sun, 2016](#)). Moreover, [Ombaba and Kosgey \(2018\)](#) present evidence that board tenure is negatively and significantly correlated with financial performance. This suggests that as the tenure of board members increases, there may be negative effects on the financial outcomes of the company.

**H2:** Board tenure does not correlate with the financial performance of the company.

Non-executive directors, also called independent directors, embody their autonomous nature by focusing on advising, guiding, and training executives in company management. Their independence is characterized by avoiding taking sides in executive actions, instead emphasizing critical analysis of company performance and pointing out risks and managerial errors. Previous research has spotlighted the correlation between a larger number of boards and improved performance, carrying implications particularly, for multinational corporations ([Ilhan Nas & Kalaycioglu, 2016](#); [Yasser et al., 2017](#); [Darko et al., 2016](#)). The ratio of independent directors is found to have a positive association with the firm performance ([Arora & Soni, 2023](#)). The crucial role of an independent board of directors is pivotal in fostering independence among directors. It not only provides insights into how to manifest the qualities conducive to independence but also supports the development of systems that facilitate such independence ([Lee et al., 2016](#)). Studies

conducted by [Ilhan Nas and Kalaycioglu \(2016\)](#), [Yasser et al. \(2017\)](#), and [Darko et al. \(2016\)](#) underscore the potential advantages of a larger board size in enhancing organizational performance. On the contrary, a study conducted by [Yasser et al. \(2017\)](#) proves that board size has a negative impact on financial performance.

**H3:** The ratio of a board of independent directors corelates with the financial performance of the company

## Method

### *Research Design*

The utilized method employs quantitative correlation between independent and dependent variables, with or without variable control. The study incorporates nine financial ratios to provide a comprehensive overview of corporate conditions, drawing from various sources ([Pérez-Calero, 2016](#)). It explores the behavior of a board director ([Feng et al., 2016](#)) and addresses issues related to a board director ([Chang & Sun 2016](#)). The variable control includes firm size, firm age, and size of the independent board of directors, as suggested by [Cha and Abebe \(2016\)](#), while not incorporating control variables suggested by [Ujunwa \(2012\)](#).

### *Sample and Data Collection*

This study utilizes secondary data from financial statements and annual disclosures of state enterprises in Indonesia spanning the years 2009 to 2016. The dependent variable is corporate financial performance, as indicated by various sources ([Cha & Abebe 2016](#); [Ilhan Nas & Kalaycioglu 2016](#); [Yasser et al., 2017](#)). In this research, nine indicators are employed: DER (Debt-to-Equity Ratio), Profit Margin, Turnover Asset, Current Ratio, Cash Ratio, Debt Ratio, NPM (Net Profit Margin), Fixed Asset Turnover, and ROA (Return on Assets). This study employs three independent variables:

- Degree ([Darko et al., 2016](#); [Ilhan Nas & Kalaycioglu 2016](#); [Feng et al., 2016](#); [Chang & Sun 2016](#)).
- Tenur ([Chang & Sun, 2016](#)).
- Independent board of directors ([Torchia & Calabro, 2016](#); [Yasser et al., 2017](#)).
- Independent board of directors =  $\beta_0 + \beta_1 \text{Firmsize a board}_t + \beta_2 \text{Firmage} + \text{a board directorsize} + \epsilon$

We divided the measurement in two models:

$$\text{Risk\_Idiosyncratic} = \beta_0 + \beta_1 \text{Degree}_t + \beta_2 \text{Tenure}_t + \beta_3 \text{Independent a board directort}_t + \beta_4 \text{Firmsize a board}_t + \beta_5 \text{Firmage}_t + \beta_6 \text{a board directorsize} + \epsilon_t$$

$$\text{Risk\_Peer} = \beta_0 + \beta_1 \text{Degree}_t + \beta_2 \text{Tenure}_t + \beta_3 \text{Independent a board directort}_t + \epsilon_t$$

### *Data Analysis*

The analysis of Risk Idiosyncratic results is bifurcated into two sections, initially concentrating on independent variables such as degree, tenure, and the size of an independent board of directors, along with control variables including firm size, firm age, and the size of an independent board of director. The second section of data analysis entails an independent variable without control variables, examining all six independent



variables collectively on the dependent variable. We defined the dependent variable using nine components of financial performance, reflecting the competitive and resource-managing characteristics of boards.

**Results**

*Risk Idiosyncratic*

*Minimum Level of Master’s Degree*

This study incorporates control variables as recommended by Cha & Abebe (2016), with the results presented in Table 1 indicating that degree only correlates with certain aspects of financial performance, specifically ROA and Fixed Asset Turnover.

Table 1. The Correlation between Degree and Financial Performance

Control Variables	Degree	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
	Correlation									
	Significance (2-tailed)									
Degree	df	0								
	Correlation	.153								
	Significance (2-tailed)	.113								
DER	df	107	0							
	Correlation	-.076	-.270							
	Significance (2-tailed)	.435	.005							
PM	df	107	107							
	Correlation	-.173	-.347	-.214						
	Significance (2-tailed)	.072	.000	.025						
Aset Turnover	df	107	107	107	0					
	Correlation	.015	-.435	.327	.088					
	Significance (2-tailed)	.880	.000	.001	.363					
Current Ratio	df	107	107	107	107	0				
	Correlation	.060	-.256	.504	-.192	.888				
	Significance (2-tailed)	.536	.007	.000	.046	.000				
Cash Ratio	df									
	Correlation	.166	.644	-.196	-.527	-.373	-.159			
	Significance (2-tailed)	.084	.000	.041	.000	.000	.099			
Debt Ratio	df	107	107	107	107	107	107	0		
	Correlation	-.077	-.269	1.000	-.215	.329	.506	-.194		
	Significance (2-tailed)	.426	.005	.000	.025	.000	.000	.043		
Firm Size, Firm Age, size of independent board of director	NPM	107	107	107	107	107	107	107	0	
	Correlation	.190	.317	-.151	.089	-.118	-.168	-.108	-.155	
	Significance (2-tailed)	.048	.001	.116	.358	.220	.081	.264	.108	
	Fixed Asset Turnover	107	107	107	107	107	107	107	107	0
	Correlation	-.264	-.514	.780	.143	.443	.463	-.505	.780	-.059
	Significance (2-tailed)	.005	.000	.000	.138	.000	.000	.000	.000	.546
ROA	df	107	107	107	107	107	107	107	107	107
										0

*Board Tenure*

The findings in Table 2 affirm that the second is accepted, indicating that the board tenure does not correlate with the financial performance of the firm.

Table 2. The Correlation between Board Tenure and Financial Performance

Control Variables	Tenure	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NP M	Fixed Asset Turnover	ROA
	Correlation									
	Significance (2-tailed)									
Tenure	df	0								
	Correlation	.061								
	Significance (2-tailed)	.526								
DER	df	107	0							
	Correlation	.019	-.270							
	Significance (2-tailed)	.842	.005							
PM	df	107	107	0						
	Correlation	.096	-.347	-.214						
	Significance (2-tailed)	.319	.000	.025						
Asset Turnover	df	107	107	107	0					
	Correlation	-.045	-.435	.327	.088					
	Significance (2-tailed)	.643	.000	.001	.363					
Current Ratio	df	107	107	107	107	0				
	Correlation	-.050	-.256	.504	-.192	.888				
	Significance (2-tailed)	.603	.007	.000	.046	.000				
Cash Ratio	df	107	107	107	107	107	0			
	Correlation	.028	.644	-.196	-.527	-.373	-.159			
	Significance (2-tailed)	.775	.000	.041	.000	.000	.099			
Debt Ratio	df	107	107	107	107	107	107	0		
	Correlation	.017	-.269	1.000	-.215	.329	.506	-.194		
	Significance (2-tailed)	.864	.005	.000	.025	.000	.000	.043		
Firm Size, Firm Age, size of independent board of director	NPM	df	107	107	107	107	107	107	107	0
	Fixed Asset Turnover	Correlation	.072	.317	-.151	.089	-.118	-.168	-.108	-.155
		Significance (2-tailed)	.456	.001	.116	.358	.220	.081	.264	.108
		df	107	107	107	107	107	107	107	107
		Correlation	.042	-.514	.780	.143	.443	.463	-.505	.780
		Significance (2-tailed)	.666	.000	.000	.138	.000	.000	.000	.546
		df	107	107	107	107	107	107	107	107
	ROA	df	107	107	107	107	107	107	107	107

*Size of Independent Board of Director on Financial Performance*

The findings in Table 3 reveal that the size of the independent board of director does not correlate with financial performance.

Table 3. The Correlation between Size of Independent Board of Director and Financial Performance

Control Variables	Size of independent board of director	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NP M	Fixed Asset Turnover	ROA
Firm Size, Firm Age, size of independent board of director	Size of independent board of director	Correlation								
		Significance (2-tailed)								
		df	0							
	DER	Correlation	-.030							

Control Variables	Significance (2-tailed)	Size of independent board of director	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
board of director	df	107	.753	0							
	Correlation		.045	-.270							
PM	df	107	.644	.005	0						
	Correlation		-.001	-.347	-.214						
Aset Turnover	df	107	.988	.000	.025	0					
	Correlation		.013	-.435	.327	.088					
Current Ratio	df	107	.897	.000	.001	.363	0				
	Correlation		.113	-.256	.504	-.192	.888				
Cash Ratio	df	107	.241	.007	.000	.046	.000	0			
	Correlation		.115	.644	-.196	-.527	-.373	-.159			
Debt Ratio	df	107	.235	.000	.041	.000	.000	.099	0		
	Correlation		.045	-.269	1.000	-.215	.329	.506	-.194		
NPM	df	107	.643	.005	.000	.025	.000	.000	.043	0	
	Correlation		.030	.317	-.151	.089	-.118	-.168	-.108	-.155	
Fixed Asset Turnover	df	107	.754	.001	.116	.358	.220	.081	.264	.108	0
	Correlation		-.018	-.514	.780	.143	.443	.463	-.505	.780	-.059
ROA	df	107	.851	.000	.000	.138	.000	.000	.000	.000	.546
											0

**Risk Peer**

*Minimum Level of Master's Degree*

Table 4 illustrates that degree only correlate with certain aspects of financial performance, namely ROA and Fixed Asset Turnover, with a significance level of  $n < 0.05$  or (0.019) (0.05).

Table 4. The Correlation between Degree and Financial Performance

	Degree	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
Pearson Correlation		1								
Sig. (2-tailed)										
Degree N		112								
Pearson Correlation		.145	1							
Sig. (2-tailed)		.126								
DER N		112	112							
Pearson Correlation		-.064	-.281**	1						
PM Sig. (2-tailed)		.506	.003							



		Degree	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA	
N			112	112	112							
Asset Turnover	Pearson Correlation		-.140	-.316**	-.295**	1						
	Sig. (2-tailed)		.141	.001	.002							
N			112	112	112							
Current Ratio	Pearson Correlation		.015	-.442**	.392**	.080	1					
	Sig. (2-tailed)		.874	.000	.000	.404						
N			112	112	112	112	112					
Cash Ratio	Pearson Correlation		.054	-.276**	.577**	-.207*	.895**	1				
	Sig. (2-tailed)		.570	.003	.000	.029	.000					
N			112	112	112	112	112	112				
Debt Ratio	Pearson Correlation		.157	.648**	-.188*	-.510**	-.383**	-.176	1			
	Sig. (2-tailed)		.098	.000	.047	.000	.000	.063				
N			112	112	112	112	112	112	112			
NPM	Pearson Correlation		-.065	-.281**	1.000**	-.295**	.393**	.578**	-.187*	1		
	Sig. (2-tailed)		.497	.003	.000	.002	.000	.000	.049			
N			112	112	112	112	112	112	112	112		
Fixed Asset turnover	Pearson Correlation		.182	.310**	-.207*	.166	-.096	-.169	-.117	-.210*	1	
	Sig. (2-tailed)		.055	.001	.029	.080	.314	.075	.221	.026		
N			112	112	112	112	112	112	112	112	112	
ROA	Pearson Correlation		-.221*	-.497**	.832**	.029	.507**	.555**	-.467**	.831**	-.106	1
	Sig. (2-tailed)		.019	.000	.000	.758	.000	.000	.000	.000	.265	
N			112	112	112	112	112	112	112	112	112	

\*. Correlation is significant at the 0.05 level (2-tailed).

†. Correlation is significant at the 0.01 level (2-tailed)

### Board Tenure

Table 5 confirms the acceptance of the second hypothesis, indicating that Tenure has no corelate with on financial performance.

Table 5. The Correlation between Board Tenure and Financial Performance

		Tenure	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
Tenure	Pearson Correlation										
	Sig. (2-tailed)										
N											
DER	Pearson Correlation	.090									
	Sig. (2-tailed)	.347									
N		112									
PM	Pearson Correlation	-.061	-.316**	.295	1						
	Sig. (2-tailed)	.522	.001	.002							
N		112	112	112	112						
Asset Turnover	Pearson Correlation	-.089	-.442**	.392	.080	1					
	Sig. (2-tailed)	.349	.000	.000	.404						
N		112	112	112	112	112					
Current Ratio	Pearson Correlation	-.062	-.276**	.577**	-.207*	.895**	1				
	Sig. (2-tailed)	.349	.000	.000	.404						
N		112	112	112	112	112	112				
Cash Ratio	Pearson Correlation	-.062	-.276**	.577	-.207*	.895**	1				
	Sig. (2-tailed)	.518	.003	.000	.029	.000					
N		112	112	112	112	112	112	112			

		Tenure	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
Debt Ratio	Pearson Correlation	.078	.648**	-.188	-.510**	-.383**	-.176		1		
	Sig. (2-tailed)	.413	.000	.047	.000	.000	.063				
	N	112	112	112	112	112	112	112			
NPM	Pearson Correlation	.029	-.281**	1.000**	-.295**	.393**	.578**	-.187*	1		
	Sig. (2-tailed)	.765	.003	.000	.002	.000	.000	.049			
	N	112	112	112	112	112	112	112	112	112	
Fixed Asset turnover	Pearson Correlation	.019	.310**	.207	.166	-.096	-.169	-.117	-.210*		
	Sig. (2-tailed)	.841	.001	.029	.080	.314	.075	.221	.026		
	N	112	112	112	112	112	112	112	112	112	112
ROA	Pearson Correlation	.003	-.497**	.832	.029	.507**	.555**	-.467**	.831**	-.106	1
	Sig. (2-tailed)	.974	.000	.000	.758	.000	.000	.000	.000	.265	
	N	112	112	112	112	112	112	112	112	112	112

\*. Correlation is significant at the 0.05 level (2-tailed).

‡. Correlation is significant at the 0.01 level (2-tailed)

*Size of Independent Board of Directors*

The findings in Table 6 reveal that the size of the independent board of directors correlates with financial performance, specifically on net profit margin (0.020) and Cash Ratio (0.015).

Table 6. The Correlation between the Size of an Independent Board of Directors and Financial Performance

		Size of independent board of director	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
Size of independent board of director	Pearson Correlation										
	Sig. (2-tailed)										
	N	112									
DER	Pearson Correlation	-.062	1								
	Sig. (2-tailed)	.516									
	N	112	112								
PM	Pearson Correlation	.220*	-.281**	1							
	Sig. (2-tailed)	.020	.003								
	N	112	112	112							
Asset Turnover	Pearson Correlation	-.089	-.316**	-.295	1						
	Sig. (2-tailed)	.350	.001	.002							
	N	112	112	112	112						
Current Ratio	Pearson Correlation	.111	-.442**	.392**	.080	1					
	Sig. (2-tailed)	.245	.000	.000	.404						
	N	112	112	112	112	112					
Cash Ratio	Pearson Correlation	.229*	-.276**	.577	-.207*	.895**	1				
	Sig. (2-tailed)	.015	.003	.000	.029	.000					
	N	112	112	112	112	112	112				
Debt Ratio	Pearson Correlation	.090	.648**	-.188*	-.510**	-.383**	-.176	1			
	Sig. (2-tailed)	.344	.000	.047	.000	.000	.063				
	N	112	112	112	112	112	112	112			
NPM	Pearson Correlation	.220*	-.281**	1.000**	-.295**	.393**	.578**	-.187*	1		
	Sig. (2-tailed)	.020	.003	.000	.002	.000	.000	.049			
	N	112	112	112	112	112	112	112	112		
Fixed Asset	Pearson Correlation	-.017	.310**	-	.166	-.096	-.169	-.117	-.210*	1	
	Sig. (2-tailed)	.862	.001	.029	.080	.314	.075	.221	.026		
	N	112	112	112	112	112	112	112	112	112	

		Size of independent board of director	DER	PM	Asset Turnover	Current Ratio	Cash Ratio	Debt Ratio	NPM	Fixed Asset Turnover	ROA
turnover	N	112	112	112	112	112	112	112	112	112	
	Pearson Correlation	.164	-.497**	.832	.029	.507**	.555**	-.467**	.831**	-.106	1
	Sig. (2-tailed)	.085	.000	.000	.758	.000	.000	.000	.000	.265	
ROA	N	112	112	112	112	112	112	112	112	112	

\*. Correlation is significant at the 0.05 level (2-tailed).

‡. Correlation is significant at the 0.01 level (2-tailed)

The results of Risk Idiosyncratic, as presented in Table 7, is divided into two sections, focusing first on independent variables such as degree, tenure, and the size of the independent board of directors, along with control variables including firm size, firm age, and the board size. The second section involves an independent variable without control variables, analyzing all six independent variables collectively on the dependent variable. We used the dependent variable using nine components of financial performance, reflecting the competitive and resource-managing characteristics of boards. Regarding expertise (degree), assessed with a behavioral accounting approach, it is observed that directors with a minimum level of Masters not only supervise managers but actively engage in managing ROA and Fixed Asset Turnover to prevent bankruptcy. Predictive signs of bankruptcy include a decreasing ROA value and fixed assets failing to generate income for the company. In line with the second hypothesis, the analysis indicates that board tenure does not correlate with financial performance. The behavioral accounting approach reveals that a board of commissioners' performance goes beyond responding to current company performance and risks; it also considers information to support future company performance. Lastly, the result indicates that the size of the independent board of directors does affect financial performance.

Table 7. Risk Idiosyncratic

		Degree	Tenure	Independent Board Directors
1	DER	0.113	0.526	0.753
2	Profit Margin	0.435	0.842	0.644
3	Turnover Asset	0.072	0.319	0.988
4	Current ratio	0.880	0.643	0.897
5	Cash Ratio	0.536	0.603	0.421
6	Debt Ratio	0.084	0.775	0.235
7	Net Profit margin	0.426	0.864	0.643
8	Fixed Asset Turnover	<b>0.048</b>	0.456	0.754
9	Return On Asset	<b>0.005</b>	0.666	0.851

There are several results on risk peer as presented in Table 8. The accounting behavior approach indicates that directors, measured with a minimum level of a Master's degree, not only supervise managers but actively participate in managing Return on Asset and Fixed Asset Turnover to prevent bankruptcy, aligning with the results of variable control involvement. Board tenure does not correlate with financial performance. The accounting behavior approach suggests that a board of directors's performance goes

beyond responding to current company performance and risks; it also considers information to support future company performance. The analysis indicates that the size of the independent board of directors does affect financial performance, specifically profit Margin (0.020), net profit margin (0.020), and Cash Ratio (0.015). In line with the third hypothesis, it is confirmed that the size of the independent board of directors correlates with the company's performance.

Table 8. Risk Peer

		Variable X		
		Degree	Tenure	Independent Board Directors
1	DER	0.126	0.347	0.516
2	Profit Margin	0.506	0.749	0.020
3	Turnover Asset	0.141	0.522	0.350
4	Current ratio	0.874	0.349	0.245
5	Cash Ratio	0.570	0.518	0.015
6	Debt Ratio	0.098	0.413	0.344
7	Net Profit margin	0.497	0.765	0.020
8	Fixed Asset Turnover	0.055	0.841	0.862
9	Return On Asset	0.019	0.974	0.085

Corporate Governance 5.0, involving idiosyncratic risk and peer risk, has depicted conditions that are no different. As per the size of the model that has been designed by researchers, the future corporate governance 5.0 needs to prioritize the ability to have a minimum master's education and have the ability to design Return on assets and fixed asset turnover (See Table 9).

Table 9. Research Results

	Degree Minimum level of Master	Board Tenure	The size of independent board of director
Risk Idiosyncratic	ROA Fixed asset turnover	X	X
Risk Peer	ROA Fixed Asset turnover	X	X

## Discussion

In the domain of corporate governance, the significance of well-educated employees is paramount. A higher educational level not only enhances the comprehension of intricate situations but also cultivates better judgment in strategic decision-making, as highlighted by Sidki et al. (2021). The educational background of supervisory boards has been shown to positively impact the performance of financial institutions, as demonstrated by Fernandes et al. (2016). Furthermore, the educational background of board members, particularly degrees from esteemed foreign business schools, has been found to exert a significantly positive influence on firm performance (Pereira & Filipe, 2018). The influence of education extends beyond individual competence to broader organizational outcomes.

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Additionally, [Hajdari et al. \(2023\)](#) emphasize the importance of ongoing education for employees in commercial banks, citing its potential to enhance productivity and, subsequently, the financial performance of the bank. [Rahman and Akhter \(2021\)](#) report that factors related to human capital investment, such as training, knowledge level, and skills, exert a significant positive influence on bank performance. The positive correlation between higher education and employment is reinforced by previous studies ([Ali & Jalal, 2018](#); [Jafar et al., 2021](#)). Collectively, these studies underscore the intricate interplay between education and organizational success within the realm of corporate governance. However, contrary to the results of this research, studies by [Sidki et al. \(2023\)](#) and [Jin & Mamatzakis \(2018\)](#) reveal no discernible effects for any competence dimensions on companies' profitability.

This study suggests that director tenure does not correlate with financial performance. Employing a behavioral accounting approach, it becomes apparent that the performance of a board of commissioners extends beyond reacting to current company performance and risks; it also involves considering information that can contribute to future company performance. This finding is consistent with earlier studies, such as [Bhuiyan \(2015\)](#) and [Chang and Sun \(2016\)](#), both of which concluded that director tenure does not exert an influence on the financial performance of the company. Contrastingly, [Ombaba and Kosgey \(2018\)](#) present evidence that board tenure is negatively and significantly correlated with financial performance. This discrepancy in findings underscores the complexity of the relationship between director tenure and financial outcomes, suggesting that additional factors or contextual nuances may contribute to the observed variations.

The size of the independent board of directors, when considered alongside control variables, shows no correlation with financial performance, while its correlation without control variables is evident in terms of net profit margin and cash ratio. Previous research in this domain suggests a positive connection between a larger number of boards and improved performance, particularly within multinational corporations. Notable studies by [Ilhan Nas and Kalaycioglu \(2016\)](#), [Yasser et al. \(2017\)](#), and [Darko et al. \(2016\)](#) highlight the potential benefits of an increased board size on organizational performance. Companies with more than 50% institutional ownership exhibit significantly better firm performance compared to those with less than 50% independent directors ([Arora & Soni, 2023](#)). Examining the role of an independent board of directors, the research by [Chang and Sun \(2016\)](#) and [Lee et al. \(2016\)](#) underscores its significance in fostering independence among directors. An optimal ratio of independent board members is necessary to leverage the benefits of their impartial judgments without undue interference in the regular business operations ([Arora & Soni, 2023](#)). The change in a board of director provides crucial information for the company's future decisions, emphasizing the company's future goals as a top priority, even though changing a board of directors is challenging.

In the realm of Indonesian state-owned enterprises, this study explores crucial factors such as education level, tenure, and board size. Insights from the study aim to enhance board effectiveness, fostering improved decision-making and adaptability. The implications include increased resilience, strategic planning, and governance for sustainable development. Corporate Governance, a contentious field, significantly influences company performance. The tenure and size of an independent board of

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directors are vital considerations, presenting challenges that require policymakers' attention for successful company navigation.

### Conclusion

Firstly, the evaluation of a board of directors' qualifications, specifically requiring a minimum Master's degree, is approached through accounting behavior. This involves simultaneous oversight of managers and active participation in managing ROA and Fixed Asset Turnover to prevent bankruptcy, with predictive signs of impending bankruptcy including a declining ROA and fixed assets failing to generate revenue. Secondly, the correlation between board tenure and financial performance, as analyzed through the accounting behavior approach, yields consistent results, indicating no significant influence on financial performance. This suggests that leveraging performance extends beyond responding to current company performance and risks; it encompasses considering information to support future company performance. Board changes provide crucial insights for the company's future decisions. Thirdly, the relationship between the size of an independent board of directors and financial performance, with or without variable control, produces varying outcomes. With the control variable, the size of the independent board does not impact financial performance. Corporate Governance, acknowledged as a contentious area in business administration literature, influences company performance for managers, shareholders, and policymakers. Conversely, without variable control, the size of the independent board is significant to net profit margin and cash ratio.

### Authors' Declaration

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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